



APPN: 09/134,831 (Reissue)
Filed: August 17, 1998
Appellant: Richard P. Mettke

Title: On-line Communications Terminal/Apparatus
Group Art Unit: 2743

Examiner: Stella Woo

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APPEAL BRIEF TO THE COMMISSIONER OF PATENTS

CERTIFICATE OF MAILING

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VA 22313-1450

Commissioner of Patents and Trademarks,
Mail Stop Appeal
P.O. Box 1450 Alexandria, VA 22313-1450

Dear Commissioner of Patents and Trademarks,

In accordance with Code of Federal Regulation 37, section 1.191, I am filing an ex parte appeal brief, appealing Examiner Woo's (group 2743) rejection (35 USC 103 (a)) of the claims in the above mentioned reissue application. Enclosed is a check in the amount of \$ 165.00 as prescribed in the USPTO fee schedule as required for this action.

The basis for this appeal is the actions of the Examiner involved with the prosecution of my Reissue Application. This is a reissue application of Patent 5,602,905. I feel that many of the Examiners office actions have been **non-responsive** as well as **unobjective**.

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I have presented a *prima facie* case for the allowance of the claims during the prosecution of the reissue application

1. **Real party in interest.** I, Richard P. Mettke, appellant, am the real party in interest.
2. **Related appeals and interferences.** There are no appeals or interferences known to the appellant which would directly affect or have a bearing on the Board's decision in the pending appeal.

3. **Status of claims.**

Claims 6-9 are pending

Claim 1-5 were cancelled

4. **Claims 6-9 are being appealed.**

5. **Status of amendments.** All amendments and responses to Office Actions have failed to persuade the Examiner. No amendments are pending.

6. **Summary of invention.**

The present invention disclosed herein comprises a system for accessing the Internet on a pay-as-you-use basis. The system includes a Central Processing Unit (CPU), internal modem, monitor, printer, credit card reading swipe device and housing.

Accordingly, besides the objects and advantages of this device/apparatus described previously in my application, several objects and advantages are (some restated):

(a) Users can conveniently access the Internet at other locations other than from their fixed terminal at an office or home.

(d) Users can receive a hard copy document from a printer of any activity that they conduct at the terminal.

(e) Users will pay for the use of the terminal using a credit card swipe apparatus. The

user will be charged for use of the terminal, telephone line use charges and additional charges by the commercial on-line service or internet provider.

(f) Commercial on-line/Internet services will benefit greatly by the additional exposure/access of their services.

(g) Users will have the convenience of having easy access to the services provided by the terminal at a reasonable price; negating the need for frequent travelers to unnecessarily carry around a cumbersome laptop terminal with accessories for conducting on-line activities.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 A typical functional embodiment is schematically illustrated by block diagram form in FIG. 1.

FIG. 2 A typical embodiment of the terminal is illustrated in diagram form in FIG. 2.

The appellant would like to note the original Patent was applied for on January 23, 1995 and granted on February 11, 1997.

7. Issues.

The examiner has refused to objectively consider prima facie arguments countering her claims that the appellant's reissue application is not patentable over **three pieces** of prior art that the Examiner claims makes my claims obvious (35 USC, 103 (a)). The three pieces of prior art that Examiner insists render the Appellants claims obvious are:

- a. An article entitled "*TouchFax Provides the Ultimate in Place-based Interactivity*" (Exhibit E, referenced in USPTO Office Action dated August 24, 1999). Provided at Appendix B.
- b. Touchfax brochure entitled "*Vision, Power, Versatility*" (Exhibit F,

referenced in USPTO Office Action dated August 24, 1999). Provided at Appendix C.

c. An article that was posted on the WWW, “*Suggestions for Information Kiosk Systems using the World Wide Web*” by Rawn Shah (Exhibit I, referenced in USPTO Office Action dated August 24, 1999). Provided at Appendix B.

Although the appellant has submitted numerous responses directed towards assisting the examiners interpretation of the prior art that she cites, the Examiner insists on another interpretation of the elements of the Prior Art that are cited. The Examiner has refused to elaborate on why the appellant’s arguments were not persuasive in numerous Office Actions. A comparison of the Appellants responses against the Examiners Office Actions proves out this contention.

(7) Grouping of claims.

The Examiner has rejected Claims 6- 9, as not being patentable (35 USC, 103 (a)). The claims all stand together.

(8) Argument.

The following arguments are provided for each of the cited prior art items. Claims 6-9 are patentable over all of the references cited by the Examiner in many Office Actions. None of the references cited by the Examiner discloses, teaches or suggests a pay-as-you-use terminal providing access to the Internet as claimed by Appellant. The Examiner has found it necessary to combine three different references to formulate her rejection, but has entirely failed to identify any motivation to combine the combination of Exhibits E and F with Exhibit I (he Shah Article). For that reason alone, the Examiner has failed to establish a *prima facie* case

of obviousness of claims. For consistency, the arguments are presented by each item of prior art as cited in USPTO Office Action, dated August 24, 1999 (The exhibits cited by the Examiner are included at **appendices B-D**):

An article entitled ***TouchFax Provides the Ultimate in Place-based Interactivity***-

Exhibit E: Exhibit E is not proper prior art. A proper reference is proven to be a "printed publication upon satisfactory showing that such document has been disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art, exercising reasonable diligence, can locate it." *In re Wyer*, 655 F.2d 221, 10 (CCPA 1981); MPEP § 2128. Accordingly, a level of public accessibility is required. MPEP § 2128.01. One example of accessibility is indexing and cataloging printed material. A date of publication, i.e., the date the printed matter was first accessible to the public, is also required. MPEP § 2128.02. While the date of publication may be shown through evidence of routine business practices (*Id.*), failure to provide sufficient evidence to prove the date of publication results in the disqualification of the printed matter as prior art.

Exhibit E appears to be an article in the October 1992 journal entitled "Interactive World." The only evidence of this is provided on the face of Exhibit E. Appellant has been unable to determine where to access "Interactive World," or what individuals had access to Exhibit E at any time prior to the filing date of this application, i.e., January 23, 1995. The PTO has the burden under § 103 to establish *a prima facie* case of obviousness. *In re Fritch*, 972 F.2d 1260 (Fed. Cir. 1992); *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). The PTO can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. *In re Fritch*, 972 F.2d 1260 (Fed. Cir. 1992); *In re Fine*, 837 F.2d 1071 (Fed.

Cir. 1988). If the examiner fails to establish *a prima facie* case, the rejection is improper and will be overturned. *In re Rijckaert*, 9 F.3d 1531 (Fed. Cir. 1993); *In re Lowry*, 32 F.3d 1579 (Fed. Cir. 1994) ("If examination at the initial stage does not produce *a prima facie* case of unpatentability, then without more, the appellant is entitled to grant of the patent.")

A PTO rejection for obviousness is improper when there is nothing in the cited prior art references, either singularly or in combination, to suggest the desirability of the claimed subject matter. *In re Deminski*, 796 F.2d 436 (Fed. Cir. 1986). That the construction in a particular prior art reference would have resulted in the claimed combination had it followed the "common practice" of attaching certain parts does not show obviousness at the time of the invention, but rather reflects improper hindsight analysis and the reading into the art of the "appellant's" own teachings. Moreover, combination of one or more references requires a finding on the part of the PTO of a teaching or suggestion, i.e., motivation, to combine the references. *In re Fritch*, 972 F.2d 1260 (Fed. Cir. 1992); *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988); *In re Deminski*, 796 F.2d 436 (Fed. Cir. 1986). Failure to identify any motivation results in a failure to show *a prima facie* case of obviousness. *In re Rijckaert*, 9 F.3d 1531 (Fed. Cir. 1993); *In re Lowry*, 32 F.3d 1579 (Fed. Cir. 1994); *In re Fritch*, 972 F.2d 1260 (Fed. Cir. 1992); *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

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A representative of the appellant searched the catalogues of Rice University and the University of Houston, two of the largest library collections in the fourth largest city in the United States and was unable to locate any journal entitled "Interactive World." Results of the searches were provided to the examiner. Because no other evidence had been provided by any of the Protestors, or by the Examiner, that Exhibit E was indexed or cataloged such that it was accessible to the public, and Appellant had presented evidence that Exhibit E was not accessible to the public through Rice University or the University of Houston, Appellant submits that Exhibit E is not prior art that can be cited against the claims of this application. Assuming *arguendo* that Exhibit E is proper prior art, Exhibit E fails to disclose, teach or suggest linking the facsimile kiosk of Exhibit E with commercial on-line/Internet service providers. Exhibit E never discusses commercial on-line/Internet service providers. Exhibit E is directed to a facsimile kiosk for sending and receiving facsimile transmissions. Exhibit E does suggest that the kiosk may be used to access "information databases," but only in the context of receiving facsimile transmissions from these databases. Exhibit E, page 2, column 2, paragraph 1, lines 3-7. Accordingly, Exhibit E lacks at least the limitation that the terminal includes "means for accessing *internet services*" in claims 6-9. (**emphasis added**). Assuming *arguendo* that Exhibit E is proper prior art, Exhibit E fails to disclose, teach or suggest linking the facsimile kiosk disclosed in Exhibit E with the Internet. Exhibit E never discusses the Internet.

"TouchFax provides the Ultimate in Place-based Interactivity" (Exhibit E) Further

Analysis-

The examiner pointed out in an Office Action that Exhibit E discloses a public on-line, pay-as-you-use communications terminal (first page, fifth paragraph) comprising:

a central processing unit (386 processor, Exhibit E, second page, first column, third paragraph, line 3)

a telephone access node (data port, Exhibit E, second page, first column, third paragraph, line 3)

an internal modem (modem, Exhibit E, second page, first column, third paragraph, line 11)

a video display monitor (touch sensitive monitor; Exhibit E, second page, first column, first paragraph, lines 2-3 of the third paragraph)

a keyboard (full sized keyboard; Exhibit E, second page, first column, third paragraph, line 4-5)

a credit card reader (Exhibit E, second page, first column, Second paragraph, line 3); means for accessing commercial on-line services and allow for user interaction (via touchscreen and computer modem; Exhibit E, second page, second column, second paragraph).

A printer (high volume laser printer; Exhibit E, second page, first column, third paragraph, line 4)

However; the article does not mention **anywhere** in the brochure that it is a

public on-line communications terminal capable of accessing the Internet as the

examiner contends. This was strictly an interpretation by the examiner. The following is the paragraph quote verbatim from the TouchFax Brochure:

"TouchFax hardware products include three models of public terminals used

initially as pay-per-use fax machines. They can provide other service such as word processing and high quality copies in addition to its primary capability of phone, fax and computer. Service products include personal fax boxes and information services which may be accessed by TouchFax public terminals and any private fax machines"

The paragraph cited above does not mention connectivity to the Internet nor anything about being an **on-line communications terminal**. The article goes on to state the capabilities of each of the three terminals (page two, column one, paragraph 3). The following is the paragraph cited by the "examiner" for most of the rejections (verbatim).

"The TF750 is a free-standing kiosk with high resolution, 14 inch screen, touch screen monitor, 386 processor, high volume laser printer and data port. The TF 450 is a built in, wall-mounted unit that has an optional floor mount and offers data ports for modem and laptop connections on an optional basis. The TF 200 is a built-in , wall mounted unit that offers laser printer as an upgraded feature.

An analysis of the paragraph proves that these terminals do not access the Internet on a pay-as-you-use basis (or any basis). Furthermore, the only information services that the terminals offer is a database to GAG with a response delivered by FAX (Page two, column 2, paragraph 2, lines 4-10). The other services (special newsletter and information) listed in the article are only obtainable from a touch tone phone and from a home or office (Page two, column 2, paragraph 3 and 4).

The examiner cites the following in the office action as part of the rejection "a credit card reader (Exhibit E, second page, first column, second paragraph, line 3); means for accessing commercial on-line services and allow for user interaction (via touchscreen and computer modem; Exhibit E, second page, second column, second paragraph)."

The words **"means for accessing commercial on-line services"** has apparently been inserted by the "examiner". The Appellant protests the Examiners insertion, which modifies the capabilities of the terminals in the article.

Touchfax brochure entitled **Vision, Power, Versatility**"- Exhibit F:

Exhibit F is likewise not proper prior art. No evidence has been provided by any of the Protestors or the Examiner as to where Exhibit F can be accessed by the public, or on what date Exhibit F became accessible to the public. Exhibit F may not have been disseminated to anyone outside of Protestor's organization at any time prior to January 23, 1995. Without sufficient evidence to prove (1) whether Exhibit F was ever accessible to the public; and (2) if it was accessible to the public, on what date was it accessible, Exhibit F can not be considered as prior art to the application. Assuming, *arguendo*, that Exhibit F is proper prior art, Exhibit F fails to disclose, teach or suggest software installed into the CPU to allow interface with commercial on-line service/internet providers and credit card service centers. Exhibit F simply includes the word "software." Nothing else is discussed about the function(s) this software performs. Furthermore, nothing in Exhibit F discloses, teaches, suggests, or even hints, that the facsimile kiosk is interconnected with commercial on-line/internet services. Accordingly, no person ordinarily skilled in the art would view Exhibit F as teaching to install software into the facsimile kiosk to interface with commercial on-line service providers as recited in claims 6-9.

An analysis of "Vision, Power, Versatility- Exhibit F. There is no date of publication, nor is there a date when it was put in to circulation. Two critical tests for prior art.

Nonetheless, the appellant will address the issues of the TF700 terminal that were not addressed above.

The additional items that the appellant would like to point out on this terminal, is that the capabilities listed are (verbatim): **telephone, send or receive Fax, photocopying, word processing, and access to a growing network of information data bases from the wall street news to international sports scores"**. The appellant's previous comments and Exhibit E explicitly states how the databases are accessed, via a touch-tone phone and "faxed "to the user. **Nothing about accessing the Internet.**

" Suggestions for Information Kiosk Systems using the World Wide Web" by Rawn Shah (Posted on the World Wide Web ([WWW]), - **Exhibit I:**

Like Exhibit E & F, the Shah Article is also not proper prior art. Neither the Examiner nor the Protestors had provided any evidence that the Shah Article was accessible to a member of the public exercising reasonable diligence. As far as the appellant and his representatives could ascertain, the Shah Article was only located on the World Wide Web. There is no evidence that the Shah Article is indexed or catalogued in any library or other location accessible to the public. A person skilled in the art would have to know the name of the author, Rawn Shah, to have any chance of locating the article using a search engine on the World Wide Web, because the other key terms, e.g., kiosk and Internet, are too generic and would likely result in over 1000 hits. Knowledge of the author of an article, when searching for certain topics, is rarely, if ever, available to the searcher. Therefore, in view of the above remarks, the Shah Article is not prior art properly available to be cited as a basis for rejection claims 6-9 of the application.

Assuming, *arguendo*, that the Shah Article is proper prior art, the Shah Article does not teach the use of any software for interfacing with credit card service centers. There is no discussion anywhere in the Shah Article regarding how a user of the kiosks in the Shah Article would pay for the use of the kiosks. The Examiner erroneously; relies upon the statements at page 2, section entitled "Who will use these systems?" and page 5, lines 11-12, for the proposition that the users will pay for access to the Internet through commercial organizations which charge customers for access to specific services. The Shah article never discusses how the user pays for those services. Contrary to the Examiner's citation of pages 3 and 5 of the Shah Article, the commercial organizations' role with the kiosks is as an owner of the kiosk who charges users for the time display an advertisement. The Shah Article do not discuss the commercial organizations as providing any specific services, let alone charging for Internet access. Furthermore, nothing is disclosed in the Shah article regarding how these commercial organizations will be paid, let alone, the payment by credit card, at the physical location of the kiosk, utilizing software for interfacing with credit card service centers.

The Shah Article does not disclose or suggest that a credit card swipe device should be employed to charge a user for use of the terminal. The Shah Article does not discuss the use of a credit card swipe device. It does not specify accessing and interfacing with the Internet. Therefore, even the combination of the three references together do not disclose or suggest the use of a credit card swipe device to charge for the use of a terminal which provides access to the internet. Nor is there any suggestion to combine Exhibits E and F with the Shah Article to produce the claimed terminal. Exhibits E and F were directed to accessing certain standalone databases, not the Internet. In fact, Exhibits E and F were specifically directed to charging the

user for use of the *service*, not for use of the *terminal*. Neither of these references contemplated the broader and more ingenious idea of allowing access to the Internet, and then charging the user for access to the *terminal*.

None of the references discloses or suggests charging users for terminal access. None of the references discloses or suggests the use of a credit card swipe device to access the Internet. There is no suggestion to combine Exhibits E and F with the Shah Article. **The following argument address "the shah" article and the examiners' combining of prior art references".** The appellant would like to point out that the article **does not pass the prior art test**. The article is dated 30 April 1994, but there is no mention of when it was posted on the WWW or the distribution of the article. Two critical factors in determining prior art applicability.

Nevertheless, the appellant feels that the examiner had a strained interpretation of the paper. **Substantially** modifying the references is not suggested by the references themselves, nor has the examiner presented a prima facie case to explain why someone skilled in the art would have made such changes to the prior devices referenced. The appellant feels that the arguments provided above adequately address the rejections as they relate to exhibits E, F & I and that the appellant should be granted allowance.

Summary:

Claims 6-9 are patentable over all of the references cited by the Examiner. None of the references cited by the Examiner discloses, teaches or suggests a pay-as-you-use terminal providing access to the Internet as claimed by Appellant. The Examiner has found it necessary to combine three different references to formulate this rejection but has entirely failed to identify any motivation to combine the combination of Exhibits E and F with Exhibit I. For

that reason alone, the Examiner has failed to establish a *prima facie* case of obviousness of claims 6-9. Moreover, Appellant maintains his argument that none of Exhibits E, F or Exhibit I are proper prior art.

The appellant has provided at appendix E, a statement (that was provided to the examiner) from the acting Director of Information Management, Fort Leonard Wood, Missouri, Mr. Greg Adank. In this statement, Mr. Adank has provided an independent analysis of the three items of prior art as they relate to the Appellants specification and his conclusions. Mr. Adank has also provided a straight forward matrix in his analysis that crosswalks the elements of the Appellants claims and the prior art cited by the examiner.

In addition, the appellant would also stress that this reissue should be allowed because it:

Provides an unexpected result. The appellant's application provides for an unexpected result. The results achieved by this invention are new, unexpected, superior, unsuggested by any of the relied on prior art.

It was a crowded art. The appellant's application is in what can be considered to be Crowded Art. Therefore, a small step forward should be regarded as significant. The appellant reminds the commissioner that the time frame for the original disclosure was January 23, 1995.

The rejections are based upon unsuggested modification. The prior art cited lacks any suggestion that the references should be modified in a manner required to meet the appellant's claims.

The rejections are based upon misunderstood reference(s). The references do not teach what the examiner relies upon as supposedly teaching. Specifically point-of-sale terminal to access the Internet.

The rejection are based upon a strained interpretation. The examiner has made a strained interpretation of the references that could only be made by hindsight. This was demonstrated by the examiner's refusal to take in to consideration the prior art reference cross walk matrix provided by Mr. Adank, an expert in the art.

The application solves a different problem. Appellant's invention solves a different problem than the references, and such different problem is recited in the claims. *In re Wright*, 6 USPQ2d 1959 (1988)

There has been no convincing reasoning. The examiner has not presented a convincing line of reasoning as to why the claimed subject matter as a whole, including the differences over prior art, would have been obvious.

There has been unsuggested combination. The prior art references do not contain any suggestion (express or implied) that they be combined, or that they be combined as the examiner suggests.

Modifications are necessary. It would be necessary to make modifications, not taught in the prior art, in order to combine the references in the manner suggested by the examiner.

Multiplicity of references. The fact that three references must be combined to meet the invention is unequivocal evidence of unobviousness.

Appellant respectfully requests that the rejection be withdrawn and allowance be provided. The appellant has made a diligent effort to amend the application so that it is in an allowable state that defines a novel structure, unobvious because it produces new and unexpected results at the time of the application (January 23, 1995)

Filed: August 17, 1998

Sincerely,



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Appendices:

Appendix A- The Claims

Appendix B- *Appendix Exhibit E, TouchFax Provides the Ultimate in Place-based Interactivity*

Appendix C - Exhibit F, Touchfax brochure entitled "*Vision, Power, Versatility*

Appendix D- Exhibit I, *Kiosk Systems using the World Wide Web*" by Rawn Shah

Appendix E- Statement by Mr. Greg Adank, Subject Matter Expert, dated April 6, 2002

Appendix A-

THE CLAIMS

6. A public on-line, pay-as-you-use communications terminal comprising a housing, wherein the housing contains:

a central processing unit (CPU);

a telephone access node;

an internal modem coupled to the CPU and telephone access node;

a video display monitor coupled to the CPU;

a keyboard for providing user interface coupled to the CPU;

a credit card reader swipe device coupled to the CPU for accepting payment by a user for use of the terminal;

means for accessing the Internet and allow for user interaction;

software installed into the CPU to allow interface with the Internet and credit card service centers; and

a printer coupled to the CPU.

7. The terminal of claim 6, wherein the means for accessing includes a touch screen interface attached to the monitor and further includes a touch screen means for accepting input information from the touch screen interface and modifying program execution accordingly terminal which communicates and controls a microprocessor.

8. The terminal in accordance with claim 6 also including, within said housing, program means for causing said printer to print a receipt or any other document available from a commercial on-line service.

9. The terminal of claim, wherein the housing includes further including a durable enclosure for the CPU, monitor, internal modem and printer, and a secured access door for service and repair.

TouchFax Provides The Ultimate In Place-Based Interactivity

By Allen Weiner, Editor



If you think of TouchFax Information Services, Inc., as a company that manufactures public fax machines, you have only part of the picture. In the rapidly growing arena of place-based media, TouchFax is creating products that will allow consumers the same sort of interactive capabilities as they will have with their home-based interactive appliances.

"We believe the information for the machine can be strategically designed for the location type so the type of service and the type of information that can be retrieved interactively on our terminals can be totally different from one machine to another," says John Massey, the machine's creator and chairman of the Lenexa, Kan., based company.

"We always will have a basic set of common services that are available on all machines," he adds. "But, particular machines will have unique sets of advertisements and promotions on them, as well as related services that relate to the type of people that frequent a particular type of location."

And locations are key to the TouchFax family of products. Massey believes they are best utilized in places where "a number of different types of users can interact with their desired and preferred telecommunications service." Airports, hotels, truck stops, apartment complexes and even supermarkets are ideal for these multifunctional, multimedia machines.

TouchFax hardware products include three models of public terminals used initially as pay-per-use fax machines. They also can provide other services such as word processing and high-quality copies in addition to its primary communication capability of phone, fax and computer. Service products include personal fax mail boxes and information services which may be accessed by TouchFax public terminal and any private fax machines.

The TF Series public terminals are location specific and are designed to meet the space in which they will reside. For example, a lower cost unit designed for low traffic locations also has a smaller paper storage capacity and would require more frequent service calls if placed in a high traffic location.

All TouchFax terminals use proprietary

software to create an easy-to-use visual control panel. This user interface to the machine is displayed on a touch-sensitive color video monitor which provides instructions to the user and on-screen buttons to operate the terminal functions.

Documents to be sent are scanned on a jam-proof flatbed scanning device which operates much like a standard copy machine. Payment for services is made by using credit card or other magnetic card such as a telephone calling card. The terminal provides a detailed printed receipt of the transaction for expense account record keeping.

"It's a system that will be deployed nationally and internationally that is designed to be a public terminal, as well as a service that goes into the home."

TouchFax's TF750 is a free-standing kiosk with a high-resolution, 14-inch color touchscreen monitor, 386 microprocessor, high-volume laser printer, full-size keyboard and data port for modem and laptop connections. The TF450 is a built-in, wall-mounted unit that has an optional floor mount and offers the data ports for modem and laptop connections on an optional basis. The TF200 is a built-in, wall-mounted unit that offers a laser printer as an upgraded feature.

TouchFax offers two service products which adds to its flexibility—a fax mailbox service and electronic library. The TouchFax Mailbox is a centrally managed electronic service capable of storing fax messages. Mailbox subscribers are given a personal phone number to allow fax messages to be sent to their mailboxes, stored in the mailbox and retrieved at any time. To retrieve stored messages, the subscriber calls his mailbox number, enters a Personal Identification Number, enters the fax destination number and the system forwards the stored fax messages as instructed.

The TouchFax Electronic Library is a collection of information products organized by category. These information products are made available by combining information databases and high-resolution fax printer output with the ease of remote telephone communications. Information products are available on TouchFax public terminals and from any private fax machine.

On a TouchFax public terminal, the touchscreen provides an interactive dialog between the consumer and the information provider. For example, a consumer can select OAG FlightFax to get up-to-the-minute flight information, seat availability and fares. The consumer is guided through a series of video screens requesting their specific flight schedule. The TouchFax public terminal then sends the information via computer modem to OAG's database and a one-page personalized report is delivered to the TouchFax terminal by facsimile.

To access the TouchFax Electronic Library from your home or office requires a touch-tone telephone. A user responds to a series of audio prompts and directs the document to his home or office fax machine. For example, consumers can define the content of an up-to-the-minute special interest newsletter compiled from the news resources of USA Today.

Users also can request details of forecasters weather conditions in their destination city, maps and directions to specific locations, as well as city guides with suggestions on where to dine and what to see. Other services are oriented specifically toward entertainment and include popular business book summaries, personalized cartoon fax messages and event schedules.

In essence, TouchFax provides the future interactive appliance user a similar service to what he will be able to access with his Interactive Video Data Service terminal, touchscreen telephone or interactive cable device. So, home or away, the consumer can be interactive.

"The TouchFax is designed to emulate exactly what a person will be able to use in their homes," says Massey. "It's a system that will be deployed nationally and internationally that is designed to be a public terminal, as well as a service that goes into the home."



Bill Fawcett the producer of the Ricardo Montalban T.V. Infomercial show is now looking for more amazing products for T.V!

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of today and tomorrow.

POWER...

Every leader has a great mind. The "mind" of the TF700 is a powerful hardware/software system engineered to provide a comprehensive set of communication functions. TouchNet™ network management software collects usage and billing data, monitors equipment status and uploads documents, software and video screens. This enables operators to remotely manage thousands of TouchFax terminals from one location. The TF700 has the additional power to access other computer systems and enhanced fax services like our own InfoTouch™ electronic library.

VERSATILITY...

Leaders stay responsive to changing circumstances. The TF700 is a versatile platform that can adapt to take advantage of new technologies and opportunities, while meeting many present needs.

~~~~~Public Fax has arrived.

The TF700 is the most complete solution to the needs of the rapidly growing public fax market. It provides high quality fax, jam-free operation and plain paper output in a convenient, self-service terminal.

-----Information Access is the key.

The TF700's self-instructing touchscreen interface encourages the general public to utilize the many information databases available.

~~~~~Word Processing is a plus.

The full-sized keyboard offers the business traveler the perfect solution to composing and printing a letter or even personalizing a greeting card.

.....Video Advertising works.

The TF700's high-resolution color monitor provides a powerful medium to deliver advertising messages. In addition, each video ad screen can be linked to a printed coupon or sales literature that is instantly printed and delivered at the touch of a button.

TF

THE PUBLIC COMMUNICATIONS TERMINAL
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TouchFax

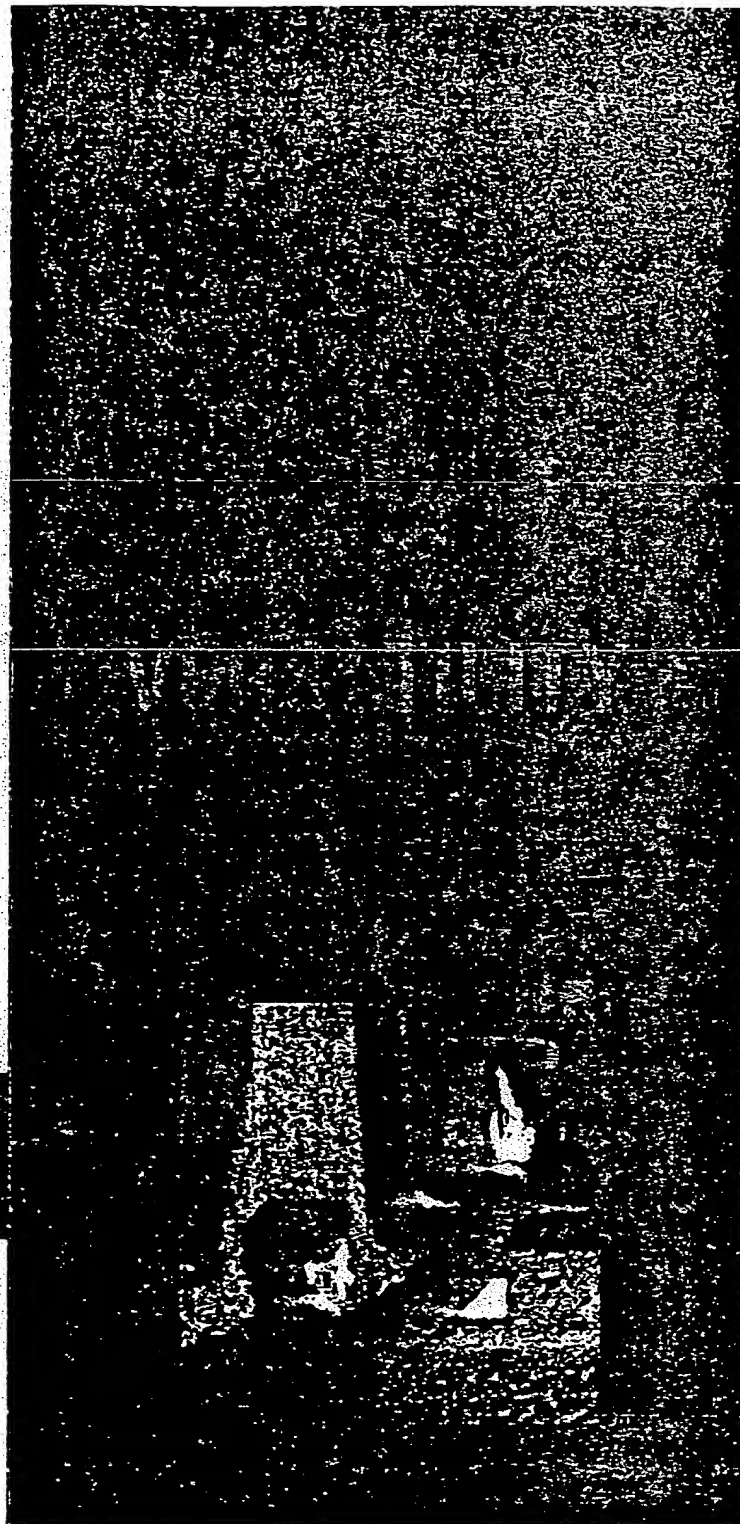
INFORMATION
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App C

product of choice.

In the new TF700, TouchFax has combined precision engineering and powerful functionality to create the industry's most advanced personal communication center. At the touch of a few buttons, the new TF700 can put anyone in touch with the world through an extensive menu of essential services including:

→ telephone, send or receive a fax, photocopying, word processing and laser printing, and access to a growing network of information databases from Wall Street news to international sports scores.

Handset and Hookswitch
are AT&T quality, delivering high performance and durability.

External Speaker
gives clear audio feedback of busy signals, fax tones, or voice prompts.

Access Door
provides convenient access to internal components, extra paper and supplies.

Ergonomically Designed Cabinet
with heavy-duty steel construction comes in a variety of finishes. Custom colors are available.



14" Color TouchScreen Monitor
offers unrivaled ease of use and displays information and ads in sharp, brilliant colors.

Credit Card Reader
accepts major credit cards, phone cards, and can be programmed to accept custom cards.

Full-sized Keyboard
extends for computer database access or word processing, and retracts when not in use.

Option Panel
allows addition of floppy disk drive, optical card reader, laptop or modem connections.

300 DPI Flatbed Scanner
delivers high resolution with jam-free, photocopier-like operation.

386 CPU
with 40 megabyte hard drive, proprietary control interface and integrated fax and data modem capabilities.

300 DPI Laser Printer
offers crisp, high-resolution printing on plain paper and an optional 700 sheet paper tray.

Compact Footprint
of just 24"W X 28"D lets the TF700 fit in almost anywhere.

TouchFax is a registered trademark © 1991 TouchFax

Touch

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Now the information age is for everyone. The TF700 provides a friendly, touchscreen window to a universe of information available from on-line computer and fax information services. Never before has the public had easier access to such a wide range of printed information.

"not dated"

the World Wide Web

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The World Wide Web Information Kiosks Special Interest Group

30 April 1994

Abstract

Information kiosks provide users with access to community and local information in an easily understandable format. They are designed to be used by the average user who has little or no experience with computer or information systems. Kiosk-based information systems are already available at a variety of locations from airports to shopping malls to community information centers.

The World Wide Web has provided the Internet with an easy interface superceding other access systems with its popularity and its capabilities. The Web naturally lends itself to a distributed kiosk-based information system although there are special requirements for such a system that current Web clients and servers do not provide.

In this paper we examine the requirements that an information kiosk system based upon the World Wide Web must have before it can be widely accepted as a distributed information system for commercial and non-commercial needs.

Introduction

A Kiosk-based Information system has many requirements to create the most user-friendly interface while maintaining security and functionality. *User-friendliness* is the most important factor for a public access information system because of the nature of the majority of its customers as non-computer professionals. Other factors that must also be considered for these systems are the functionality and security of the servers.

The Effectiveness of the World Wide Web as Kiosk-based Information System

The first question that should be asked is why one would use the World Wide Web as a design for a kiosk-based information system. We have identified the reasons why the Web is ideally suited for this application:

- the Web has proven itself as a successful networked information system through its popularity on the Internet.

EXHIBIT

I

~~EXHIBIT~~

APD

these capabilities already.

- the Web is part of the Internet. This allows users access to the many services on the Internet.
- the ability of the Web to access other programs and services allows programmers to extend the capabilities of the server.
- the Web is a widely accepted standard as opposed to proprietary commercial multimedia systems which holds promise for its growth and development.

Who will use these systems?

The next question asks who will actually implement and who will use these systems. There has been varied interest by commercial and non-commercial organizations in the World Wide Web. Currently there are several projects underway to develop a commercial version of popular Web browsers as well as commercial services for these browsers.

The following are some examples of who might implement such kiosk-based information systems:

- Commercial, educational and governmental organizations who need to provide in-house information systems about their products and services. For example, hotels, amusement parks, shopping malls, etc.
- Communities and organizations who want to install public access booths to provide community information at key locations within the community, such as community information networks, University campuses, Airport authorities, etc.
- Commercial Information Referral organizations who wish to provide a paid service through such kiosks. *Advertising*

The Access Interface

The Access Interface comprises both the programs as well as the computer hardware necessary for a kiosk-based information system. This includes the Web browser or client program, the output hardware (the visual display unit, a sound system, printing systems), the input hardware (touch-screen systems, keyboards, light-pens & stylus, keypads, etc.), the kiosk-local processing hardware (if any), kiosk-local cache or information storage (if any), and the network connection hardware.

The user interface or Web browser will be accessed by the average user who may have very little or no experience with computer system. The user interface for a kiosk-based information system should be:

- Easy to use controls. Controls for the kiosk system should be understandable and easy to handle.
- Easy to understand information display. The text or visual information should be easily readable and understood in content and form by the user.
- Access to contents should be as direct as possible. The user should have to go through as few steps as possible for to reach the information they require.
- Documents should be transferred in as short an access time as possible or present a failed message if the time to access the document is longer than a certain amount considered as $t = \infty$.
- The program interface should be able to return to a default home page automatically when left idle for an extended period of time.
- The physical unit should be reasonably secure to tampering or vandalism so as not to provide incorrect information.

- A minimal number of input devices so as not to confuse the user.
- Easy to use input devices such as a touch-screen or stylus based system
- The unit must be at an adequate height so that it is accessible by most people including handicapped users.
- The output devices should be easy to understand. Visual display output devices should be large enough to be read without difficulty by any type of user. A sound system should be clear enough to be understood but not loud enough to offend.
- Security against vandalism or theft of the kiosk should be maintained.
- A set of clear operating instructions for the booth must be displayed in some form on the physical unit of the booth to ensure proper usage.

• User Interface Program

- Non-essential items such as buttons or menubars not directly related to the content of each page or not required for the correct usage of the system should not appear. Such items may also give a user access to secure or incomplete areas of the Webspace.
- A common device such as a toolbar should always be present to provide users with a central control mechanism to the interface system. For example, users may wish to return to the home page or skip back to previously viewed pages. This device should be modifiable to the requirements of specific installations.
- Support for internationalization and non-English languages and character sets.
- The program should be able to keep track of the history of documents accessed by the user. It should be able to understand different usage sessions counting each session as one beginning from the home page. It should remove the history of access from previous sessions.
- It may be able to display graphics and movies and play digitized sounds and voice overs.
- It may be able to launch other programs to be presented upon the same output devices.
- There should be a diagnostic mode for servicing the program or the kiosk-local system.

The Server

There are also suggested requirements for the Server program for these information kiosk systems.

Commercial organizations will most likely have an invested interest in such information kiosk systems and may require that certain procedures should be followed by the servers for these systems.

Note that each kiosk may be a standalone system containing all the local information and with a link to the rest of the network. This would be a fast but costly system since the information requested the most often would be on local storage media. This may also be difficult to implement and maintain if there is a large amount of data. However, it will reduce the cost of the network link if a non-permanent circuit or dial-up connection is used.

Each kiosk may in turn be a client only system which access the information over the network link from a remote server and caches the information locally. To transfer the information from the server down to the kiosk may take some time but it saves cost and reduces the maintenance. This may be expensive if network connect time charges are expensive.

Functionality

The server should be able to access foreign databases which act as storehouses of raw data. The server should be able to locate these databases and the information within with the least amount of processing or translation.

The server should have good support for graphics and graphical enhancements. The concept of imagemaps are almost a must. Mapping between commands and images enhances the ease of use of system. Also useful would be a reverse of the imagemap concept where a user selects an item or enters a piece of text and its corresponding image is displayed.

Storage and Transfer

Since these kiosks may be located at remote sites, the problems of data storage, caching and transfer becomes important especially considering that the information has to be presented in a rapid and predictable manner.

The problems of data storage are directly related to the actual implementation and hardware requirements of the system. Although no specific suggestions have been made as to the actual computer system required for a kiosk-based information system, the general trend is to use cheaper and cost-effective equipment to reduce the problems of theft, vandalism, or damage.

If the server and data is located locally, the kiosk would only require to use the network when accessing remote documents. The kiosk-local computer system would not require a very large cache area since the documents can be accessed very rapidly.

If the server is located remotely more considerations come into play. The server must be able to respond and transfer documents in a limited amount of time over the network link. Servers might also be able to offload requests to other similar servers when they are too busy to respond. This suggests a form of server to server communication and load-balancing which is currently *not* a part of the HTTP specification. The data may require to be replicated across several storage systems and duplicate servers on other computer systems may be necessary as a failsafe measure to ensure constant access.

Security

Security of the server depends upon the type of implementation of the kiosk, whether standalone or remote server based. However, certain common elements exist in both, such as physical access to the server's computer system. Access to the console of the server should only be allowed to secure personnel to ensure the safety of the information.

Network security is another issue. Access to the computer network that the servers are located on should be secure to reduce the chance of computer cracking or vandalism of the information. Since most servers run on common operating systems such as UNIX, VMS, etc., operating system security is also a crucial element in the safety of the information.

Data managers should decide upon a protocol for operator access, updating and maintenance of the information since it can affect the lives of many others.

Another form of access is dependent upon the content of the documents. A public system will not often

Control

Control involves the access to the server and kiosk system for diagnostic examinations and also modification of the information space. Control is tied in very closely with security.

Operators and Data Managers may wish to log access to documents for statistical analysis. Keeping accurate logs of document access can help administrators anticipate growth of the installation.

Each installation should be able to decide which URI's are accessible through their server. Some installations may decide that they do not wish to provide their kiosks with access to the "news" or "mailto" services.

Commercial organizations may also wish to charge customers for access to specific documents or services. The concept of registered users and billing may be built into the server.

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Mr. Richard P. Mettke

April 6, 2002

Reference: Patent Number: 5,602,905

Dear Mr. Mettke,

Upon complete review of your original patent application (8/376247) and patent number 5,602,905, reissue amendment filed on DEC 11, 2001, and USPTO Office Action dated MAR 12, 2002 (Examiner Woo), I would submit to you the following observations as someone skilled in the art.

General Observations: The patent application articulates well a multitude of automation capabilities that one should considered "commonplace" in 1994. Typical home and business computers (Intel based 286/386 and other compatible class processors) were capable of performing all tasks and features described in your background description of prior art. Specifically, those systems were capable of sending and receiving faxes via internal or external modem, generating electronic documents and printing or faxing them to a remote terminal, communicate with on-line service providers (Prodigy, Compuserve, AOL), as well as be used to communicate on the Internet via Internet service provider (ISP). The ability to couple a credit card reading device to a computer terminal was also common place during this time as many point-of-sale devices (i.e. cash registers) were in fact systems built from the core components found inside a computer terminal.

Understanding and Interpretation: The most straightforward approach to building the terminal device described in your patent is to use and adapt operating systems, hardware, and software that was readily available. With commercial off the shelf (COTS) hardware and software available in 1994 and the details given in the referenced patent I submit the following comments with regard to the feasibility of building such a terminal device.

[Handwritten signature]

1

App E

1. The Microsoft Windows 3.1 operating system was released April, 1992 and was the most popular computer operating system on the market in 1994. Windows NT 3.1 was released August 1993. Either operating system could fully support the functionality needed to enable a computer terminal as described in your patent.
2. The ability to print information generated by or downloaded to the computer terminal is a common capability for such a device described in the patent. Operating systems identified in #1 above support a wide variety of laser quality printers, there is no particular challenge to make this feature work.
3. Given that the terminal device must communicate with on-line service providers, Internet service providers, and have the ability to send/receive faxes, it would be highly desirable to have a high-speed internal modem in the terminal. Such devices were readily available and could perform all communications tasks as defined in the patent.
4. Assuming that a Fax/Modem device is installed in the terminal I would point out that the software, which typically accompanies such devices, would fully enable the terminal to perform dial-up connections to on-line services, Internet services, and send/receive electronic faxes.
5. Microsoft Office was released in January 1990 and would provide an array of office automation capabilities on the terminal. Since your patent only identifies word processing I would select the Microsoft Word application, which was available as a separate software package, to provide word processing capabilities at the terminal device.
6. In order for the computer terminal to access on-line service providers (Prodigy, CompuServe, AOL) specialized software would be needed. It was, and still is, commonplace for such service providers to distribute dial-up software free of charge to customers that subscribe to their service. The computer terminal would need one copy of each on-line provider's access software package to properly communicate with their host network. In my experience it was commonplace for multiple on-line provider software packages to reside on a single computer terminal and would not present itself as a technical challenge to configure.

7. The computer terminal would also require special capabilities to obtain network connectivity from an ISP. As described in your patent this capability would enable the terminal user to send and receive email and locate information available on the Internet. Windows 3.1 and NT 3.1, along with the Internet Explorer web browser (which is part of the operating system) has sufficient dial on demand capabilities to support the task of providing ISP based services.

Review of Figures: The functional operation of this proposed terminal device is clearly illustrated in figure 1. It illustrates relationships between the general telephone switching network, on-line service providers, Internet service provider, and the computer terminal device. It further illustrates the functional relationship between the terminal device and a credit card service provider. As figure 1 illustrates, the computer terminal device may require a single plain old telephone system (POTS) circuit to perform credit card validation, dial-up access to on-line and Internet services, and send/receive faxes.

Figure 2 illustrates a physical layout of the computer terminal and cubical or privacy booth that would contain the device(s) identified in figure 1. What is not apparent in either figure, but what I perceive is implied in the patent, is that a housing would be used to store the computer terminal, input/output apparatus, and credit card swiping device. It would be highly desirable to centralize such components in a single enclosure and limit access to the devices through a customer service opening in the front, and a lockable access panel to protect and secure components from tampering and/or theft. Such enclosures were readily available on the market and are frequently used in manufacturing plants, assembly line operations, and in other environments where delicate devices must be protect from damage due to impact, natural elements, and/or vandalism. The computer terminal as described in the patent would easily fit within a single housing and does not present itself as a technical challenge.

Evaluations of Exhibits: The following table identifies the features and capabilities listed in or implied within each of the exhibits and the Mettke patent. Upon close

evaluation it is my opinion that none of the three exhibits provide at least the same services as described in the patent or reissue application. The TouchFax exhibits clearly provide a customer with advanced fax, copier, word processing, and proprietary database access to selected information. However, that system does not provide access to existing on-line service providers (i.e. Prodigy, CompuServe, AOL), nor does it suggest that the TouchFax devices have the capacity to offer direct Internet access through an ISP.

The Shah article provides a framework for building information kiosk system using the World Wide Web as it's primary communication and information infrastructure. While it lists and recommends much of the same equipment identified in the patent it clearly does not mention nor imply that such kiosk devices should offer customers access to existing on-line service providers, or the Internet on a point-of-sale basis, or provide pay-per-use send/receive fax service. The Shah article makes no mention of a credit card swipe reader. The following matrix identifies the similarities and differences in capabilities as stated and implied within each exhibit, the patent, and reissue patent.

Feature	Exhibit E TouchFax	Exhibit F TouchFax	Exhibit I "Shaw" Article	Mettke Patent	Mettke Reissue Patent
Access to Internet services			x	x	x
Access to on-line Services				x	
Advertisements and promotions	x	x	x		
Credit Card Reader	x	x		x	x
Data Ports	x	x			
Electronic Library	x	x			
Fax Mail Box Service	x				
Flat Bed Scanner Device	x	x			
High Quality Copier	x	x			
Keyboard	x	x	x	x	x
Laser Printer		x	x	x	x
Light-pen, stylus, keypad			x		
Multi-language support			x		
Network Connection Hardware			x		
Pay-per-use	x	(implied)	x	x	x
Phone	x	x			
Printed Receipt	x			x	x
Remote System Management		x	x		
Send/Receive Fax Services	x	x		x	x
Sound system			x		
Touch Fax Information Service	x	x			
Touch Net		x			
Touch Screen Monitor	x	x	x	x	x
Web Browser			x	(implied)	(implied)
Word Processing	x	x		x	x
See Footnotes:	1,2	3	4	5	

1. Makes vague reference to providing "...related services that relate to the type of people that frequent a particular type of location"

2. Electronic library produces "fax" output only, and on topics made available via proprietary databases (I.e. OAG Flight Fax for flight information)

3. On the bottom of page two, right hand corner, a vague comment is made to the product providing access to "...a universe of information available from On-line computer and fax information services." The nature of this advertisement implies that the on-line services provided are those available through a proprietary library service that the fax device will interact with and produce output from.

4. Makes no mention of kiosks that can access existing on-line service providers or their information (I.e. Prodigy, CompuServe, AOL) or the Internet

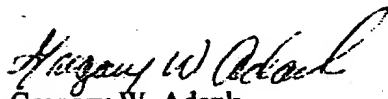
5. On-line services are defined in the patent as commercial services such as Prodigy, CompuServe and AOL.

Conclusion: Having reviewing the referenced patent and three exhibits I have formed the following professional opinions:

1. Having read and understood information provided in patent 5,602,905 and the reissue amendment it is my firm belief that the pay-per-use fax service, ability to access on-line service providers, and ability to access information on the Internet via ISP is feasible and defined sufficiently enough as to allow someone skilled in the art to build and deploy such a device.
2. Exhibits E and F clearly communicate that their primary capabilities are to provide word processing, copier, and fax services to the patron. These devices have the ability to interact with and retrieve information from a proprietary database, but only to the extent that the service provider has anticipated the needs of their customers and pre-loaded the information as to make it available. These devices clearly lack the ability to communicate or interact with data stores generally found on the Internet through an ISP. Neither do TouchFax devices allow access to existing on-line services, such as Prodigy, Compuserve and AOL or the Internet.
3. The Shah article provides a framework for building information kiosk system using the World Wide Web as it's primary communication and information infrastructure, however it does not state nor imply such devices should offer access to existing on-line service providers, the Internet, or a send/receive fax service on a point-of-sale basis.

Personal Background and Credentials: I currently work for the United States Government in the capacity of Acting Directory, Information Management, at Fort Leonard Wood, Missouri 65473. Specific duties and technical skills include Network/System administrator of a 5000 node Campus Area Network composed of Windows and Unix based servers and desktop computers. Programmer, develops software applications using multiple high-level interpreted and compiled languages.

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